

RR3-10 Business Hours and Days

NPAC SMS shall support definition and processing of business hours and days for operations involving business time calculation.

RR3-11 Business Day Definition

NPAC SMS business days shall be Monday through Friday excluding NPAC operations-defined holidays.

RR3-12.1 Business Day Duration - Tunable Parameter

NPAC SMS shall provide a Business Day Duration tunable parameter, which is defined as the number of hours from the tunable business day start time.

RR3-12.2 Business Day Duration - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Business Day Duration tunable parameter.

RR3-12.3 Business Day Duration - Tunable Parameter Default

NPAC SMS shall default the Business Day Duration tunable parameter to 12 hours.

RR3-13.1 Business Day Start Time - Tunable Parameter

NPAC SMS shall provide a Business Day Start Time tunable parameter, which is defined as the start of the business day in Central Standard Time.

RR3-13.2 Business Day Start Time - Tunable Parameter Modification

NPAC SMS shall default the Business Day Start Time tunable parameter to the value specified by the contracting region.

RR3-13.3 Business Day Start Time - Tunable Parameter Default

NPAC SMS shall default the Business Day Start Time tunable parameter to 7:00 AM, Central Standard Time.

RR3-14 Business Holidays

NPAC SMS shall allow NPAC operations personnel to add/delete business holidays.

4. Service Provider Data Administration

4.1 Service Provider Data Administration and Management

Service Provider Data Administration functions allow NPAC personnel to receive and record data needed to identify authorized LNP Service Providers. The Service Provider data indicates who the LNP Service Providers are and includes location, contact name, security, routing, and network interface information.

Service Provider Administration supports functionality to manage Service Provider data. There can be only one instance of Service Provider data for a specific LNP Service Provider.

AR1-1 Service Provider ID

All NPAC Customers will obtain a unique Service Provider ID from a proper source.

4.1.1 User Functionality

R4-1 Create Service Providers

The NPAC SMS shall allow NPAC Personnel to add a Service Provider.

R4-2 Modify Service Providers

NPAC SMS shall allow modification of Service Provider data via the NPAC SMS to Local SMS interface or the SOA to NPAC SMS interface. Service Providers can only modify their own data.

R4-3 Delete Service Providers

NPAC SMS shall allow NPAC personnel to delete a Service Provider.

R4-4 View of Service Provider Data

NPAC SMS shall allow NPAC personnel to view Service Provider data.

R4-5.1 View List of Service Provider Subscriptions

NPAC SMS shall allow NPAC personnel to view a list of Subscription Versions associated with the Service Provider.

R4-5.2 Authorized Service Providers View Their Own Data

NPAC SMS shall allow authorized Service Provider personnel to view their own Service Provider data via the SOA to NPAC SMS interface, the NPAC SMS to Local SMS interface, and the NPAC SOA Low-tech Interface.

RX4-2 Authorized Service Providers Modify Their Own Data

NPAC SMS shall allow authorized Service Provider personnel to modify their own Service Provider data.

RR4-4.1 Broadcast NPAC Customer Names

NPAC SMS shall broadcast all additions, modifications, and deletions of NPAC Customer names via the NPAC SMS to Local SMS interface.

4.1.2 System Functionality

This section describes NPAC SMS functionality required to support the NPAC personnel requests described in the above section. The following specifies user requests and lists the NPAC SMS functionality needed to support those requests.

4.1.2.1 Service Provider Data Creation

NPAC personnel can request that Service Provider data be created in the NPAC SMS. The functionality described below enables a new instance of Service Provider data for a Service Provider to be created, provided that no other Service Provider data exists for the Service Provider.

R4-6 New Service Provider ID

NPAC SMS shall require the following to be entered to identify the Service Provider, when NPAC personnel are creating a new Service Provider:

Service Provider ID - the alphanumeric identifier of the Service Provider. This ID must be unique.

R4-7.1 Examine for Duplicate Service Provider ID

NPAC SMS shall check to see if there is an existing Service Provider with the same Service Provider ID.

R4-7.2 Error notification of Duplicate Service Provider

NPAC SMS shall inform the user that the Service Provider data already exists for the Service Provider, if it does exist, and that the new Service Provider data cannot be created.

R4-8 Service Provider Data Elements

NPAC SMS shall require the following data if there is no existing Service Provider data:

1. Service Provider name, address, phone number, and contact organization.
2. NPAC customer type.
3. Service Provider allowable functions.
4. Service Provider Network Address of NPAC SMS to Local SMS interface.
5. Service Provider Network Address of NPAC SMS to SOA interface.
6. Service Provider Security Contact. Contact data is security data when Contact Type is "SE."
7. Service Provider Repair contact name and phone number. The default Service Provider Repair Contact and phone number shall be the same as the Service Provider contact and phone number, if the Service Provider Repair Contact information is left blank.
8. Service Provider billing name, address, phone number, and billing contact for NPAC SMS billing. The default for the Service Provider Billing data shall be the same as the Service Provider data, if the Service Provider Billing information is left blank.
9. Service Provider Download Indicator
10. Service Provider Maximum Query

The following data is optional:

- Service Provider Contact Type: SOA Contact, Local SMS, Web, Network Communications, Conflict Resolution, Operations, and User Administration Contact Address Information.

R4-9 Service Provider data validation

NPAC SMS shall validate that all required Service Provider data has been received, after the Service Provider data has been collected.

R4-10 Notification of successful add for new Service Provider

NPAC SMS shall notify NPAC personnel upon successful creation of the new Service Provider.

R4-11 Failure notification of Service Provider creation

NPAC SMS shall issue an appropriate error message upon unsuccessful creation of the new Service Provider.

4.1.2.2 Service Provider Data Modification

NPAC personnel and the SOA to NPAC SMS interface and the NPAC to Local SMS interface can request that Service Provider data be modified in the NPAC SMS. The functionality described below enables the user to modify data for the Service Provider.

R4-12

(Duplicate - refer to R4-2)

R4-13 Service Provider Key selection for modifying Service Provider data

NPAC SMS shall require one of the following data items to identify the Service Provider data to be modified:

Service Provider ID
or
Service Provider Name

The Service Provider ID is required over the SOA to NPAC SMS interface and the NPAC SMS to Local SMS interface.

R4-14 Error notification of invalid Service Provider ID or Name during Modify

NPAC SMS shall issue an appropriate error message to the user if the Service Provider data to be modified does not exist.

R4-15.1 Modify restrictions on Service Provider data - Service Providers

NPAC SMS shall allow Service Provider data to be modified or added to the Service Provider data with the exception of the data listed in Table 3-2.

R4-15.2 Modify restrictions on Service Provider data - NPAC Operations Personnel

NPAC SMS shall allow NPAC Operations personnel to modify the data in Table 3-2, with the exception of the NPAC Customer ID.

R4-16 Re-validation of Service Provider data after Modify

NPAC SMS shall revalidate that all required Service Provider data is present when a user attempts to submit modified Service Provider data.

R4-17 Modify Validation Error Message

NPAC SMS shall issue an appropriate error message to the user if the Service Provider data fails validation on a modify.

R4-18.1

DELETE

R4-18.2

DELETE

R4-18.3

DELETE

4.1.2.3 Delete Service Provider Data

NPAC personnel can request that the Service Provider data be deleted. Deleted Service Provider data will be written to a history file. The functionality described below enables a user to delete data for the Service Provider.

R4-19

(Duplicate - refer to R4-3)

R4-20 Service Provider key for delete

NPAC SMS shall require the Service Provider ID and/or Service Provider name from the user to identify the Service Provider data to be deleted.

R4-21 Error Message for Delete key search

NPAC SMS shall generate an error message and send it to the request originator, if the Service Provider data does not exist, or if it has already been deleted and exists only in a history file. NPAC SMS will not proceed further with the deletion request.

R4-22.1 No Subscription Versions during Service Provider Delete

NPAC SMS shall perform the deletion of the Service Provider data, notify the user that the deletion request was successful, if there are no affected Subscription Versions, and write the Service Provider data to a history file.

R4-22.2 Subscription during Service Provider Delete

NPAC SMS shall notify the user that the request to delete the Service Provider data cannot be completed until the affected individual Subscription Versions are modified, if affected Subscription Versions are found.

R4-22.3 Service Provider subscription restrictions during Network Data Delete.

NPAC SMS shall determine if there are any Subscription Versions being affected by the NPA-NXX and/or LRN data being deleted.

4.1.3 Service Provider Queries

The query functionality discussed in this section will give users the ability to view Service Provider and Subscription data. A user may not be able to modify a particular data item because they do not have the proper security permissions, therefore the data is made available via NPAC SMS for read-only purposes.

4.1.3.1 User Functionality

R4-23

(Duplicate - refer to R4-5.2)

R4-24.1 Display of Service Provider ID and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with a Service Provider ID and/or Service Provider Name.

R4-24.2 Display of LRN and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with an LRN.

R4-24.3 Display of NPA-NXX and related subscription data

NPAC SMS shall allow NPAC personnel to view all Subscription Versions associated with an NPA-NXX.

4.1.3.2 System Functionality

The following specifies NPAC SMS functionality needed to support the user requests described above.

4.1.3.2.1 Service Provider Query

R4-25 Service Provider as Key for queries

NPAC SMS shall require the Service Provider ID and/or the Service Provider Name for queries regarding Service Provider data.

R4-26.1 Error message for unknown Service Provider during a query

NPAC SMS shall provide the request originator with a message indicating that there was no data in the NPAC SMS that matched the search keys for a Service Provider query, if no match was found.

R4-26.2 Results returned to Service Provider during a query

NPAC SMS shall return all Service Provider data associated with the Service Provider ID and/or Service Provider Name, as listed in Tables 3-1, 3-2, and 3-3, if the Service Provider data matches the query criteria. Service Providers are only allowed to query their own data.

R4-27 Service Provider Query Types

NPAC SMS shall receive the Service Provider ID, a request to view subscription data, and optionally the subscription data status types to be returned (e.g., active only, active or pending) for queries regarding subscription data for a specific Service Provider.

R4-28 Service Provider Information Message during query

NPAC SMS shall provide the request originator with a message indicating that there was no data in NPAC SMS that matched the search keys, if NPAC SMS does not have subscription data as specified by the request originator.

4.1.3.2.2 Subscription List Query**R4-29 Service Provider subscription query options**

NPAC SMS shall receive the attributes to be searched on for queries regarding Subscription Versions associated with the Service Provider. Allowable attributes are the following data elements from *Table 3-5 Subscription Version Data Model*:

- Subscription Version ID
- Subscription Version Status
- Local Number Portability Type
- Ported Telephone Number
- Old facilities-based Service Provider Due Date
- New facilities-based Service Provider Due Date
- New facilities-based Service Provider ID
- Authorization from old facilities-based Service Provider
- Local Routing Number (LRN)
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- Billing Service Provider ID
- End User Location Value
- End User Location Type
- Customer Disconnect Date
- Effective Release Date
- Disconnect Broadcast Complete Time Stamp
- Conflict Time Stamp
- Activation Time Stamp
- Cancellation Time Stamp (Status Modified to Cancel Time Stamp)
- New Service Provider Creation Time Stamp
- Old Service Provider Authorization Time Stamp
- Pre-cancellation Status
- Old Service Provider Cancellation Time Stamp
- New Service Provider Cancellation Time Stamp
- Old Time Stamp (Status Modified to Old Time Stamp)

- New Service Provider Conflict Resolution Time Stamp
- Create Time Stamp
- Modify Time Stamp
- Porting To Original
- Status Change Cause Code

R4-30.1 Service Provider subscription query

NPAC SMS shall return all active Subscription Versions associated with the Service Provider which satisfy the selection criteria, up to a tunable parameter number of Subscription Versions for queries initiated via the NPAC SMS to Local SMS interface.

R4-30.2 NPAC SMS shall return all Subscription Versions

NPAC SMS shall return all Subscription Versions regardless of Subscription Version status for queries initiated via the NPAC SOA Low-tech Interface.

R4-30.3

DELETE

R4-30.4

DELETE

R4-30.5

DELETE

R4-30.6 Count of subscription information during a query

NPAC SMS shall return an "out of range" error and the count of subscription records returned by a query, if more than a tunable parameter number of Subscription Versions are found.

R4-30.7

DELETE

R4-30.8 Error Message for Service Provider subscription query

NPAC SMS shall provide the request originator with a message indicating that there was no data in NPAC SMS that matched the search keys, if NPAC SMS does not have Subscription Versions as specified by the request originator.

4.2 Additional Requirements

RN4-1 Service Provider Network Data Addition/Deletion

NPAC SMS shall allow Service Providers to add/delete the NPA-NXX and/or LRN data via the NPAC SMS to Local SMS interface and SOA to NPAC SMS interface provided the changes do not cause mass updates to the Subscription Versions.

RR4-1 Removal of Service Provider with Respect to LRNs

NPAC SMS shall allow removal of a Service Provider by NPAC personnel only if all associated LRNs are removed, and no Subscription Versions are associated with the LRN.

RR4-2 Removal of Service Provider with Respect to NPA-NXXs

NPAC SMS shall allow removal of a Service Provider by NPAC personnel only if all associated NPA-NXXs are removed, and no Subscription Versions are associated with the NPA-NXX.

RR4-3 Removal of NPA-NXX

NPAC SMS shall allow removal of an NPA-NXX by NPAC personnel only if no Subscription Versions, except Old or Canceled Subscription Versions, are associated with the NPA-NXX.

RR4-4.2 Removal of LRN

NPAC SMS shall allow removal of an LRN by NPAC personnel only if no Subscription Versions, except Old or Canceled Subscription Versions, are associated with the LRN.

5. Subscription Management

5.1 Subscription Version Management

Subscription Management functions allow NPAC personnel and SOA to NPAC SMS interface users to specify data needed for ported numbers. The subscription data indicates how local number portability should operate to meet subscribers' needs. These functions will be accessible to authorized service providers via an interface (i.e., the SOA to NPAC SMS interface) from their operations systems to the NPAC SMS and will also be accessible to (and performed by) NPAC personnel.

Subscription Management supports functionality to manage multiple versions of subscription data. See Section 0, *Subscription Version Management*, for more details on the different states of a version.

RN5-1 Subscription Version Status - Only One Per Subscription

NPAC SMS shall allow only one pending, cancel pending, conflict, disconnect pending, failed or partial failure Subscription Version per subscription.

RN5-2 Subscription Version Status - Only One Active Version

NPAC SMS shall allow only one active Subscription Version per subscription.

RN5-3 Subscription Version Status - Multiple Old/Canceled

NPAC SMS shall allow multiple old and/or canceled Subscription Versions per subscription.

5.1.1 Subscription Version Management

Subscription Version management provides functionality to manage multiple time-sensitive views of subscription data. This section addresses version management for LNP and the user and system functionality needed for subscription administration. In this context a version may be defined as time-sensitive subscription data.

At any given time, a Subscription Version in the SMS can have one of several statuses (e.g., active, old) and may change status depending on results of different SMS processes (e.g., modification, activation). This section describes the different statuses that a version can have and the SMS processes that can change the status. This section also discusses functionality and data that is needed for Subscription Management.

5.1.1.1 Version Status

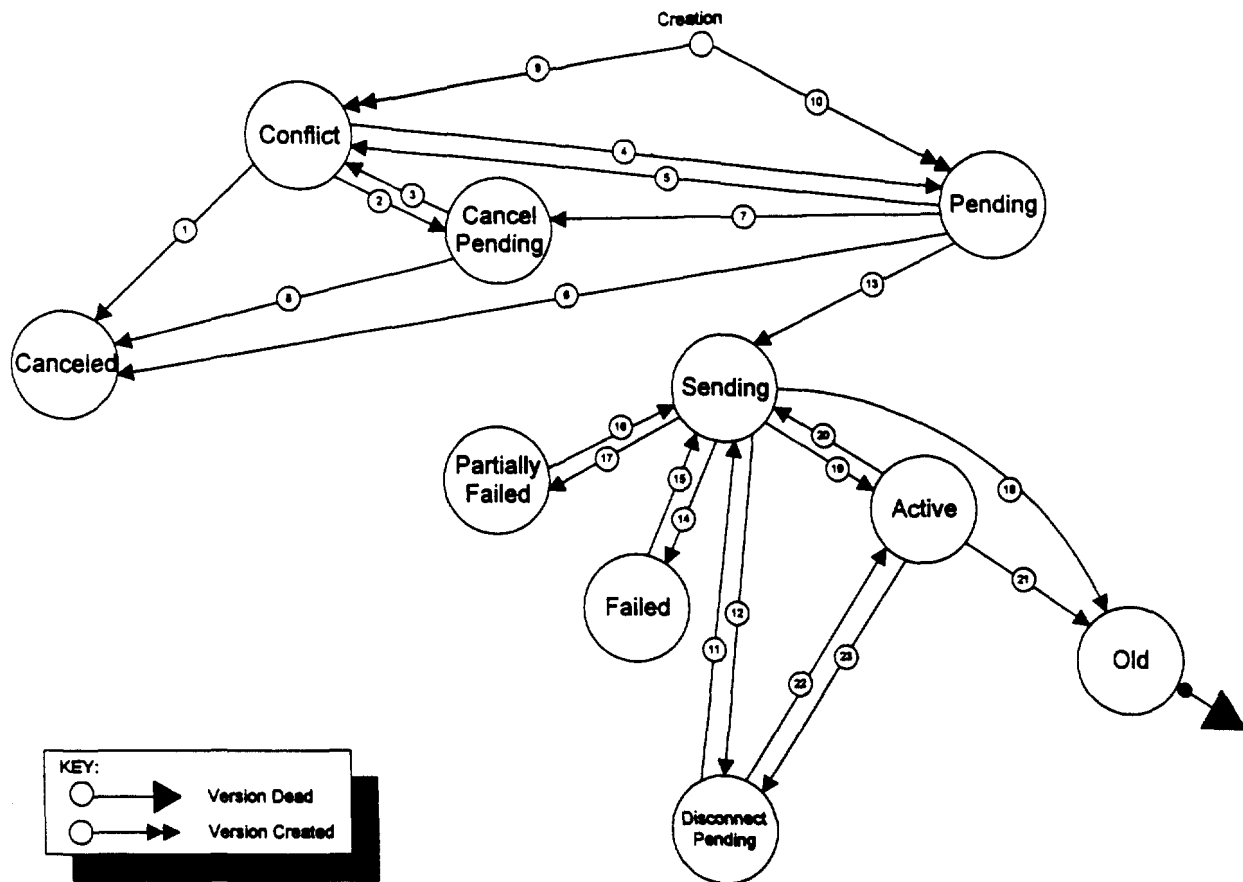


Figure 5-1 Version Status Interaction Diagram

Version Status Interaction Descriptions			
#	Interaction Name	Type	Description
1	Conflict to Cancel	NPAC SMS Internal	NPAC SMS automatically sets a Subscription Version in conflict directly to canceled after it has been in conflict for a tunable number of calendar days.
		SOA to NPAC SMS Interface or NPAC SOA Low-tech or Administrative Interface	Service Provider User sends a cancellation request for a Subscription Version created by that Service Provider with a status of Conflict that has not been concurred by the other Service Provider.
2	Conflict to Cancel Pending	NPAC SOA Low-tech or Administrative Interface	User cancels a Subscription Version in conflict or cancels a Subscription Version that was created by or concurred to by both Service Providers.

Version Status Interaction Descriptions			
#	Interaction Name	Type	Description
		SOA to NPAC SMS Interface	User sends a cancellation request for a Subscription Version with a status of conflict or cancels a Subscription Version that was created by or concurred to by both Service Providers.
3	Cancel Pending to Conflict	NPAC SOA Low-tech or Administrative Interface	User sets a Subscription Version with a status of cancel pending to conflict.
		NPAC SMS Internal	NPAC SMS automatically sets a Subscription Version with a status of cancel pending to conflict if cancel pending acknowledgment has not been received from the new Service Provider within a tunable timeframe.
4	Conflict to Pending	NPAC Administrative Interface – NPAC Personnel and SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface – Old Service Provider	User removes a Subscription Version from conflict.
		SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface - New Service Provider	New Service Provider User removes a Subscription Version from conflict. This action can only occur if a tunable number of hours have elapsed since the Subscription Version was placed in conflict.
5	Pending to Conflict	NPAC Administrative Interface – NPAC Personnel	<ol style="list-style-type: none"> 1. User sets a Subscription Version with a status of pending to conflict. 2. User creates a Subscription Version for an existing pending Subscription Version for the old Service Provider and does not provide authorization for the transfer of service.
		SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface – Old Service Provider	Old Service Provider sends a Subscription Version creation or modification request for a Subscription Version with a status of pending, which revokes the old Service Provider's authorization for transfer of service. This action can only be taken once, and must be taken a tunable number of hours prior to the new Service Provider due date.
6	Pending to Cancel	NPAC Administrative Interface – NPAC Personnel	User cancels a Subscription Version with a status of pending that has not been concurred by both service providers.

Version Status Interaction Descriptions			
#	Interaction Name	Type	Description
		SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface	Service Provider User sends a cancellation request for a Subscription Version created by that Service Provider with a status of pending that has not been concurred by the other Service Provider.
		NPAC SMS Internal	<ol style="list-style-type: none"> NPAC SMS automatically sets a pending Subscription Version to cancel after authorization for the transfer of service has not been received from the new Service Provider within a tunable timeframe. NPAC SMS automatically sets a pending Subscription Version to cancel if an activation request is not received a tunable amount of time after new Service Provider due date.
7	Pending to Cancel Pending	NPAC Administrative Interface - NPAC Personnel	User cancels a Subscription Version with a status of pending that has been created/concurred by both Service Providers.
		SOA to NPAC SMS Interface or NPAC SOA Low-tech Interface	Service Provider User sends a cancellation request for a Subscription Version with a status of pending that has been concurred by the other Service Provider.
8	Cancel Pending to Cancel	NPAC SMS Internal	NPAC SMS automatically sets a cancel pending Subscription Version to canceled after receiving cancel pending acknowledgment from the concurring Service Provider, or the final cancellation concurrence window has expired without cancel concurrence from the old Service Provider.
9	Creation - Set to Conflict	NPAC Administrative Interface - NPAC Personnel	User creates a Subscription Version for the old Service Provider and does not provide authorization for the transfer of service.
		SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface - Old Service Provider	User sends an old Service Provider Subscription Version creation request and does not provide authorization for the transfer of service.

Version Status Interaction Descriptions

#	Interaction Name	Type	Description
10	Creation - Set to Pending	NPAC Administrative Interface – NPAC Personnel	User creates a Subscription Version for either the new or old Service Provider. If the create is for the old Service Provider and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, NPAC SOA Low-tech Interface</i> .
		SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface	User sends a Subscription Version creation request for either the new or old Service Provider. If the create is for the old Service Provider, and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, SOA to NPAC SMS LOW-TECH INTERFACE</i> .
11	Disconnect Pending to Sending	NPAC SMS Internal	NPAC SMS automatically sets a deferred disconnect pending Subscription Version to sending after the effective release date is reached.
12	Sending to Disconnect Pending	NPAC SMS Internal	NPAC SMS automatically sets a Subscription Version from sending to disconnect pending when the broadcast of the disconnect pending fails completely.
13	Pending to Sending	NPAC Administrative Interface - NPAC Personnel	User activates a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today.
		SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface - New Service Provider	New Service Provider User sends an activation message for a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today.
14	Sending to Failed	NPAC SMS Internal	NPAC SMS automatically sets a Subscription Version from sending to failed after all Local SMSs fail Subscription Version activation after the tunable retry period expires.
15	Failed to Sending	NPAC Administrative Interface – NPAC Personnel	User re-sends a failed Subscription Version.
16	Partially Failed to Sending	NPAC Administrative Interface – NPAC Personnel	User re-sends a partial failure Subscription Version.

Version Status Interaction Descriptions			
#	Interaction Name	Type	Description
17	Sending to Partially Failed	NPAC SMS Internal	NPAC SMS automatically sets a Subscription Version from sending to partial failure after one or more, but not all, of the Local SMSs fail the Subscription Version activation after the tunable retry period expires.
18	Sending to Old	NPAC SMS Internal	NPAC SMS automatically sets a sending Subscription Version to old after a disconnect or "porting to original" port to all Local SMS successfully completes.
19	Sending to Active	NPAC SMS Internal	<ol style="list-style-type: none"> 1. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version activation is successful in all of the Local SMSs. 2. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version modification is successfully broadcast to any of the Local SMSs.
20	Active to Sending	NPAC Administrative Interface – NPAC Personnel	User disconnects an active Subscription Version and does not supply an effective release date, or User modifies an active Subscription Version.
		SOA to NPAC SMS Interface to NPAC SOA Low-tech Interface - Current Service Provider	User sends a disconnect request for an active Subscription Version and does not supply an effective release date, or User modifies an active Subscription Version.
21	Active to Old	NPAC SMS Internal	NPAC SMS automatically sets the currently active Subscription Version to old once a Subscription Version activation or disconnect is successful in all Local SMSs.
22	Disconnect Pending to Active	NPAC Administrative Interface – NPAC Personnel	User cancels a Subscription Version with a disconnect pending status.
		SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface – New Service Provider	User sends a cancellation request for a disconnect pending Subscription Version.
23	Active to Disconnect Pending	NPAC Administrative Interface - NPAC Personnel	User disconnects an active Subscription Version and supplies a future effective release date.

Version Status Interaction Descriptions			
#	Interaction Name	Type	Description
		SOA to NPAC SMS Interface and NPAC SOA Low-tech Interface- Current Service Provider	User sends a disconnect request for an active Subscription Version and supplies a future effective release date.

Table 5-9 Version Status Interaction Descriptions

R5-1.1 Subscription Version Statuses

NPAC SMS Subscription Version instances shall at any given time have one of the following statuses:

- Active - Version is currently active in the network.

NOTE: *There may be another pre-active version in the system that will eventually supersede this version. Examples: 1) Pending version for the active subscription exists 2) Sending version for the active subscription exists.*

- Canceled - A pending, conflict, or disconnect pending version was canceled prior to activation in the network.
- Cancel Pending - Version is awaiting cancellation acknowledgment from the concurring Service Providers, at which time the version will be set to canceled.
- Conflict - Version is in conflict (i.e., a dispute exists between the two Service Providers), awaiting resolution.
- Disconnect Pending - Version is awaiting the effective release date, at which time the version will be set to sending and the disconnect request will be sent to all Local SMSs.
- Failed - Version failed activation in ALL of the Local SMSs in the network.
- Old - Version was previously active in the network and either was superseded by another active version or was disconnected.
- Partial Failure - Version failed activation in one or more, but not all, Local SMSs in the network.
- Pending - Version is either pending activation (approval had been received from both Service Providers) or pending creation/approval from one or the other Service Provider.
- Sending - Version is currently being sent to all of the Local SMSs in the network.

R5-1.2

(Duplicate - refer to R5-20.3)

(Duplicate - refer to R5-30.2)

(Duplicate - refer to R5-53)

(Duplicate - refer to R5-54)

(Moved - refer to R5-54.2)

R5-2.1 Old Subscription Retention - Tunable Parameter

NPAC SMS shall provide an Old Subscription Retention tunable parameter which is defined as the length of time that old Subscription Versions shall be retained and accessible through a query request.

R5-2.2 Old Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Old Subscription Retention tunable.

R5-2.3 Old Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Old Subscription Retention tunable parameter to 18 calendar months.

R5-3.1 Cancel-Pending Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Cancel-Pending Subscription Retention tunable parameter which is defined as the length of time that canceled Subscription Versions with a pre-cancellation status of pending shall be retained and accessible through a query request.

R5-3.2 Cancel-Pending Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancel-Pending Subscription Retention tunable parameter.

R5-3.3 Cancel-Pending Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Cancel-Pending Subscription Retention tunable parameter to 90 calendar days.

R5-3.4 Cancel-Conflict Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Cancel-Conflict Subscription Retention tunable parameter which is defined as the length of time that canceled Subscription Versions with a pre-cancellation status of conflict shall be retained and accessible through a query request.

R5-3.5 Cancel-Conflict Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancel-Conflict Subscription Retention tunable parameter.

R5-3.6 Cancel-Conflict Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Cancel-Conflict Subscription Retention tunable parameter to 30 calendar days.

R5-3.7

DELETE

R5-3.8

DELETE

R5-3.9

DELETE

R5-3.10 Cancel-Disconnect Pending Retention - Tunable Parameter

NPAC SMS shall provide a Cancel-Disconnect Pending Retention tunable parameter which is defined as the length of time that canceled Subscription Versions with a pre-cancellation status of disconnect pending shall be retained and accessible through a query request.

R5-3.11 Cancel-Disconnect Pending Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Cancel-Disconnect Pending Retention tunable parameter.

R5-3.12 Cancel-Disconnect Pending Retention - Tunable Parameter Default

NPAC SMS shall default the Cancel-Disconnect Pending Retention tunable parameter to 90 calendar days.

RR5-1.1 Pending Subscription Retention - Tunable Parameter

NPAC SMS shall provide a Pending Subscription Retention tunable parameter, which is defined as the length of time that a pending Subscription Version shall remain in the system prior to cancellation.

RR5-1.2 Pending Subscription Retention - Tunable Parameter Modification

NPAC SMS shall allow the NPAC SMS Administrator to modify the Pending Subscription Retention tunable parameter.

RR5-1.3 Pending Subscription Retention - Tunable Parameter Default

NPAC SMS shall default the Pending Subscription Retention tunable parameter to 90 calendar days.

RR5-1.4 Pending Subscription Retention - Tunable Parameter Expiration

NPAC SMS shall cancel a Subscription Version by setting the subscription version to cancel after a pending Subscription Version has existed in the system for a Pending Subscription Retention number of calendar days subsequent to new Service Provider Due Date.

R5-4

(Duplicate - Refer to RN5-1)

R5-5 Subscription Versions Creation for TN Ranges

NPAC SMS shall create individual Subscription Versions when a Subscription Version creation request is received for a TN range.

R5-6 Subscription Administration Transaction Logging

NPAC SMS shall log all subscription administration transactions. The log entries shall include:

- Activity Type: create, modify, activate, query, all status types, and all acknowledgments.
- Service Provider ID
- Initial Version Status
- New Version Status (if applicable)
- User ID and/or Login
- Local Number Portability Type
- Date
- Time
- Ported Telephone Number
- Status Flag - successful or failed
- Subscription Version ID (when assigned)

5.1.2 Subscription Administration Requirements

5.1.2.1 User Functionality

Authorized users can invoke the following functionality in the NPAC SMS to administer subscription data:

R5-7 Creating a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA to NPAC SMS interface to create a Subscription Version.

R5-8.1 Modifying a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA to NPAC SMS interface to modify a Subscription Version.

R5-8.2

(Duplicate - refer to R5-25)

R5-9 Activating a Subscription version

NPAC SMS shall allow NPAC personnel and the SOA to NPAC SMS interface to activate a Subscription Version.

RN5-9

DELETE

R5-10.1 Setting a Subscription Version to Conflict

NPAC SMS shall allow NPAC personnel to set a Subscription Version to conflict.

R5-10.2 Subscription Version Conflict Status Rule

NPAC SMS shall prohibit a Subscription Version in conflict from being activated.

R5-11 Disconnecting a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA to NPAC SMS interface to disconnect a Subscription Version.

R5-12 Canceling a Subscription Version

NPAC SMS shall allow NPAC personnel and the SOA to NPAC SMS interface to cancel a Subscription Version.

R5-13 Querying a Subscription Version

NPAC SMS shall allow NPAC personnel, Local SMS/ SOA to NPAC SMS interface to query for a Subscription Version.

5.1.2.2 System Functionality

This section describes NPAC SMS functionality required to support NPAC personnel and SOA to NPAC SMS interface user requests defined in the above section.

Additionally, NPAC SMS functionality will perform operations which are not invoked by a direct user request. Some examples of this are: monitor a Subscription Version to determine whether the old and the new facilities-based Service Providers have authorized the transfer of service for a ported number, issue appropriate notifications to Service Providers, and change the status of a Subscription Version based on tunable parameters.

5.1.2.2.1 Subscription Version Creation

This section provides the requirements for the Subscription Version Create functionality, which is executed upon the user requesting to create a Subscription Version.

RR5-3 Create Subscription Version - Notify NPA-NXX First Usage

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when an NPA-NXX is being ported for the first time immediately after creation validation of a Subscription Version.

5.1.2.2.1.1 Subscription Version Creation - Inter-Service Provider Ports

This section provides the Subscription Version Creation requirements for performing an Inter-Service Provider port of a TN. There are two types of Inter-Service Provider ports: A port of a TN to a new Service Provider from the Old, or a "porting to original" port. A "porting to original" port implies that all porting data will be removed from

the Local SMSs and the TN will revert to the default routing, which ultimately results in the TN returning to the original "donor" Service Provider.

The primary differences in functionality between these two types of Inter-Service Provider ports is that for a "porting to original" port, the routing data is not supplied and upon activation, a delete request is broadcast to the Local SMSs instead of a create request.

Both port types of Inter-Service Provider ports require authorization for the transfer of service from the new Service Provider.

R5-14 Create Subscription Version - Old Service Provider Input Data

NPAC SMS shall accept the following data from the NPAC personnel or old Service Provider upon Subscription Version creation for an Inter-Service Provider port:

- Local Number Portability Type -Port Type.
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes.
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur.
- New facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider.
- Old facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider.
- Authorization from old facilities-based Service Provider - indication that the transfer of service is authorized by the ported-from Service Provider.
- Status Change Cause Code - indication of reason for denial of authorized by the Old Service Provider.

R5-15.1 Create "Inter-Service Provider Port" Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port when NOT "porting to original":

- Local Number Portability Type - Port Type. This field must be set to "LSPP" for Inter-Service Provider ports.
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes.
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur.
- New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider.
- Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider.
- Location Routing Number (LRN) - the identifier of the ported-to switch.
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- Porting to Original - flag indicating whether or not this is a "porting to original" port. This flag must be set to "FALSE" for this type of Inter-Service Provider port.

R5-15.2 Create "porting to original" Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider "porting to original" port:

- Local Number Portability Type - Port Type. This field must be set to "LSPP" for "porting to original" ports.
- Ported Telephone Number(s) - this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes.
- Due Date - date on which transfer of service from old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur.
- New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider.
- Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider.
- Porting to original - flag indicating whether or not this is a "porting to original" port. This flag must be set to "TRUE" for "porting to original" port.

R5-16 Create Subscription Version - New Service Provider Optional input data

NPAC SMS shall accept the following optional fields from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port:

- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type

R5-17.1

(Duplicate - Refer to R5-18.7 and R5-20.1)

R5-17.2

(Duplicate - Refer to R5-18.8 and R5-20.1)

R5-18.1 Create Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-5 upon Subscription Version creation for an Inter-Service Provider port:

- LNP Type
- Ported TN(s)
- Old Service Provider Due Date
- New Service Provider Due Date
- Old Service Provider ID
- New Service Provider ID
- Authorization from old facilities-based Service Provider
- Status Change Cause Code
- LRN
- Class DPC
- Class SSN
- LIDB DPC
- LIDB SSN

- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- Porting to Original
- Billing Service Provider ID
- End-User Location - Value
- End-User Location - Type

R5-18.2 Create Subscription Version - Due Date Consistency Validation

NPAC SMS shall verify the old and new Service Provider due dates are the same upon initial Subscription Version creation for an Inter-Service Provider port.

R5-18.3 Create Subscription Version - Due Date Validation

NPAC SMS shall verify that the due date is the current or a future date upon Subscription Version creation for an Inter-Service Provider port.

R5-18.4 Create Subscription Version - Ported TN NPA-NXX Validation

NPAC SMS shall verify that the NPA-NXX to be ported exists as an NPA-NXX in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port.

R5-18.5 Create Subscription Version - Service Provider ID Validation

NPAC SMS shall verify that the old and new Service Provider IDs exist in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port.

R5-18.6 Create Subscription Version - LRN Validation

NPAC SMS shall verify that an input LRN is associated with the new Service Provider in the NPAC SMS system upon Subscription Version creation for an Inter-Service Provider port.

R5-18.7 Create Subscription Version - Originating Service Provider Validation

NPAC SMS shall verify that the originating user is identified as the new or old Service Provider on the incoming Subscription Version upon Subscription Version creation for an Inter-Service Provider port.

R5-18.8 Create Subscription Version - Duplicate Authorization Validation

NPAC SMS shall verify that authorization for transfer of service for a given Service Provider does not already exist when a Service Provider creates a Subscription Version for an Inter-Service Provider port.

R5-18.9 Create Subscription Version - Service Provider ID Validation

NPAC SMS shall verify that the incoming New and Old Service Provider IDs match the IDs in the current pending version, if one exists, upon Subscription Version creation for an Inter-Service Provider port.

R5-18.10 Create Subscription Version - Status Change Cause Code Validation

NPAC SMS shall require and only allow the Status Change Cause Code to be set when the Old Service Provider authorization is set to false.

R5-19.1 Create Subscription Version - Old Service Provider ID Validation

NPAC SMS shall verify that the old Service Provider ID on the version being created is equal to the new Service Provider ID on the active Subscription Version, if an active version exists upon Subscription Version creation for an Inter-Service Provider port.

R5-19.2 Create Subscription Version - Old Service Provider ID Validation - No Active Subscription Version

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS.

R5-20.1 Create Subscription Version - Validation Failure Notification

NPAC SMS shall send an appropriate error message to the originating NPAC personnel or SOA to NPAC SMS interface user if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port.

R5-20.2 Create Subscription Version - Validation Failure - No Update

NPAC SMS shall not apply the incoming data to an existing subscription if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port.

R5-20.3 Create Subscription Version - Validation Failure - No Create

NPAC SMS shall not create a new Subscription Version, if a version does not exist, if any of the validations fail upon Subscription Version creation for an Inter-Service Provider port.

R5-20.4 Create Subscription Version - Validation Success - Update Existing

NPAC SMS shall apply the incoming data to an existing Subscription Version if all validations pass upon Subscription Version creation for an Inter-Service Provider or port.

R5-20.5 Create Subscription Version - Validation Success - Create New

NPAC SMS shall create a new Subscription Version, if a version does not already exist, if all validations pass at the time of Subscription Version creation for an Inter-Service Provider port.

R5-21.1 Initial Concurrency Window - Tunable Parameter

NPAC SMS shall provide an Initial Concurrency Window tunable parameter which is defined as the number of business hours subsequent to the time the Subscription Version was initially created by which both Service Providers can authorize transfer of service if this is an Inter-Service Provider port.